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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 09/828,715 | 04/06/2001 | Christine W. Jarvis | CXU-350 | 5602 |

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| EXAMINER |
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RHEE, JANE J

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| ART UNIT | PAPER NUMBER |
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1772

DATE MAILED: 02/10/2003

4

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/828,715

Applicant(s)

JARVIS ET AL.

Examiner

Jane J Rhee

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-- The MAILING DATE of this communication appears in the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 5-37 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1,5-37 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1,5-9,11-16,18,22-25, 29,30,34-37 are rejected under 35 U.S.C. 102(b) as being anticipated by Obayashi et al. (4410575).

Obayashi et al. discloses a method of forming a seam between substrates comprising: providing a first substrate having an upper surface and a lower surface (figure 6 number 1), the upper and the lower surfaces of the first substrate defining at least one edge (figure 1 number 3a); providing a second substrate having an upper surface and a lower surfaces of the second substrate defining at least one edge (figure 1 number 2 and 4a); overlapping the edge of the first substrate with the edge of the second substrate (figure 1 number 3 and 4); positioning a continuous thermoplastic tape having a first tape portion and a second tape portion adjacent to the first substrate and the second substrate such that the first tape portion is in operative communication with the upper and lower surfaces of the first substrate and the second tape portion is in operative communication with the upper and lower surfaces of the second substrate (figure 6 numbers 1, 2, and 11-13) and forming an adhesive bond and a physical bond between the first tape portion and the first substrate and between the second tape portion the second substrate (figure 6). Obayashi et al. discloses that the method

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further comprises heating the first and second tape portion to a predetermined temperature (col. 4 lines 25-28). Obayashi et al. discloses that the first and second predetermined temperature is between about 10°C below the thermal melting temperature of the thermoplastic material to about 50°C above the thermal melting temperature of the thermoplastic material (col. 4 lines 25-31). Obayashi et al. discloses that the first and second portion of the tape is subjected to pressure (col. 4 line 12). Obayashi et al. discloses that the first tape portion to simultaneous heat and pressure and subjecting the second tape portion to simultaneous heat and pressure (col. 4 lines 10-12). Obayashi et al. discloses that the first substrate and second substrate are fabrics (col.1 line 6). Obayashi et al. discloses multiple layers in the tape portion (col. 5 lines 36-38) and that the layers contain thermoplastic material having a first thermal melting temperature and another one of the layers contain a thermoplastic material having a second thermal melting temperature, the second thermal melting temperature being greater than the first thermal melting temperature (col. 3 lines 57-58, col. 4 lines 25-29). Obayashi et al. discloses folding the tape portions into a certain shape such as a z-shaped configuration (figure 6 numbers 11-13). Obayashi et al. discloses that the tape portions are folded after being placed adjacent to first substrate and the second substrate (col. 5 lines 27-31). Obayashi et al. discloses that at least one of the tape portions comprises polyurethane (col. 8 line 25).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 10,21,28,31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Obayashi et al. in view of Benstock et al. (5003902).

Obayashi et al. discloses the method of forming a seam between two substrates described above. Obayashi et al. fail to disclose that the pressure is between about 40 pounds per square inch to about 120 pounds per square inch. Obayashi et al. fail to disclose that the edge of at least one of the substrate is non linear. Benstock et al. teaches that the pressure is 40 pounds per square inch (col. 5 line 2) for the purpose of providing optimum heating and fusing characteristics (col. 5 line 1). Benstock et al. discloses that the edge of at least one of the substrate is non linear (figure 1A number 10) for the purpose creating a liquid tight barrier (col. 3 lines 13-14).

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide Obayashi et al. with the pressure of 40 pounds per square inch in order to provide optimum heating and fusing characteristics (col. 5 line 1) as taught by Benstock et al.

Furthermore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide Obayashi et al. with the edge of at least one of the substrate being non linear (col. 7 line 39) in order to create a liquid tight barrier (col. 3 lines 13-14) as taught by Benstock et al.

3. Claims 17 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Obayashi et al. in view of Arakawa et al. (5591521).

Obayashi et al. discloses the method of forming a seam between two substrates described above. Obayashi et al. fail to disclose that the tape portions are folded prior to being placed adjacent to the first substrate and the second substrate. Arakawa et al. teaches that the tape portions are folded prior to being placed adjacent to the first substrate and the second substrate for the purpose of having a portion of the tape being easily released to latch on to the second substrate (col. 5 line 55).

Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide Obayashi et al. with the tape portions that are folded prior to being placed adjacent to the first substrate and the second substrate in order to have a portion of the tape being easily released to latch on to the second substrate (col. 5 line 55) as taught by Arakawa et al.

4. Claims 19-20,26-27,32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Obayashi et al. in view of Wilhoit et al. (6096420).

Obayashi et al. discloses the method of forming a seam between two substrates described above. Obayashi et al. fail to disclose that the method further comprises etching at least one of the surfaces of the first substrate or the second substrate. Wilhoit et al. teaches etching (col. 2 lines 64-65) on the surfaces of plastic films for the purpose of enhancing the affinity of the film surface to the pressure sensitive adhesive (col. 2 lines 58-60).

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Therefore, it would have been obvious to one of ordinary skill in the art at the time applicant's invention was made to provide Obayashi et al. with etching on the surfaces of plastic films in order to enhance the affinity of the film surface to the pressure sensitive adhesive (col. 2 lines 58-60) as taught by Wilhoit et al.

Response to Arguments


Applicant's arguments with respect to claims 1,5-37 have been considered but are moot in view of the new ground(s) of rejection.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jane J Rhee whose telephone number is 703-605-4959. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Harold Pyon can be reached on 703-308-4251. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.


2/5/03


HAROLD PYON
SUPERVISORY PATENT EXAMINER
1772

2/6/03